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1  (1)  GENERAL INFORMATION
2  (2)  INFORMATION FOR SEQ. ID NO.1:
3  (i)  SEQUENCE CHARACTERISTICS:
4  (A)  LENGTH: 5001 BASE - #PAIRS
5  (B)  TYPE: NUCLEIC ACID
6  (C)  STRANDEDNESS: SINGLE
7  (D)  TOPOLOGY: LINEAR
8  (ii) MOLECULE TYPE: GENOMIC DNA
9  (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.1
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21  CAGGCAACACAGCCTCCAGGTGTTCAACTTGAAGGTGTGACACCACTGGTGTGCTGGCAG
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27  GTGGGCGCACGTCCAAGAAATGTTTACCGTTTTGATTGACAGCAAAACATCATGATCAT
28  CAAAGGAGTGCATCGACAGTCAACGATCACCAGGTGATTACGTTTGTCACTGACAAGCGC
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2 (2) INFORMATION FOR SEQ. ID NO.2:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 5208 BASE - #PAIRS
5 (B) TYPE: NUCLEIC ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: GENOMIC DNA
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.2
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5 (B) TYPE: NUCLEIC ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: GENOMIC DNA
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.3
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2025-07-29 10:07:59

1 (2) INFORMATION FOR SEQ. ID NO.4:
2 (i) SEQUENCE CHARACTERISTICS:
3 (A) LENGTH: 448 AMINO - #AMINO
4 (B) TYPE: AMINO ACID
5 (C) STRANDEDNESS: SINGLE
6 (D) TOPOLOGY: LINEAR
7 (ii) MOLECULE TYPE: ~~PROTIEN~~ PROTEIN
8 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.4
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1007699-021502

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2 (2) INFORMATION FOR SEQ. ID NO.5:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 497 AMINO - #ACIDS
5 (B) TYPE: AMINO ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: PROTEIN
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.5
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17 LRTAYELFTGTPLRSLSEVRGMDGIKETNITMVPAPGSKFEELLKHRAAARAEAAAHG
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19 CVGGGGQPRSTDKAITQKRQAALYNLDEKSTLRRSHENPSIRELYDTYLGEPLGHKAHEL
20 LHTHYVAGGVEEKDEKK
21

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1
2 (2) INFORMATION FOR SEQ. ID NO.6:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 436 AMINO - #ACIDS
5 (B) TYPE: AMINO ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: PROTEIN
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.6
10
11
12 MCCPVVASRHRARHVAVRAAGPTSECDPPTQAKLPHWQQALDELAKPKESRRRLMIA
13 QIASAVRVAIAETIGLAPGDVTIGQLVTGLRMLGFDYVFDTLFGADLTIMEEGTELLHRL
14 QDHLEQHPNKEEPLPMFTSCCPGWAMVEKSNPELIPYLSSCKSPQMMLGAVIKNYAQQ
15 VGVQPSDICNVSVMPVCVRKQGEADREWFNTTGAGLARDVDHVVTAEVGKIFLERGIKLN
16 ELPESNFDNPIGEGTGGALLFGTTGGVMEALRTVYEVTQKPMGRVDFEEVRGLEGIKE
17 AEITLKPDDSPFKAFAGADGGITLKIAVANGLGNAKKLIKSLSEGKAKYDFIEVMACP
18 GGCIGGGGQPRSTDQILQKRQQAMYNLDERSTIRSHDNPFIQALYDKFLGAPNSHKAH
19 DLLHTHYVAGGIPEEK
20

10077699 "021502"

1
2 (2) INFORMATION FOR SEQ. ID NO.7:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 2636 BASE - #PAIRS
5 (B) TYPE: NUCLEIC ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: MRNA
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.7
10
11
12 ACAACAGAGCGTTAGAGATACTTCATAGCTGCAACTAGACTACCTTTACCCTAACGAAAT
13 CACCCTAGACCGACAGTGTCTGGAGTAGCTGCGACCCAAACGTGATGGCGAGCGGATTGCT
14 TCTCAAGCAGCGCTCGGTATGCCTGAGTGGCAACCGGGAGGTCGGTATGCTGTTTCTGTCT
15 CGCCCGCCAGTGAACAGGCGGGCTGTGGTGGCAGCAGAGCGCAGGCGCCTTGTTGTGCGG
16 GCAGCTGGCCCAACAGCAGAATGTGATTGCCACCAGCTCCCGCGCCCAAGGCCCCGCAC
17 TGGCAGCAGACGCTAGATGAGCTAGCCAAGCCTAAGGAGCAGCGCAAGGTGATGATCGCC
18 CAGATCGCACCAGCAGTGC GCGTGGCTATTGCAGAGACCATGGGACTCAACCCTGGGGAT
19 GTGACAGTTGGCCAGATGGTGACCGGCCTGCGCATGCTGGGCTTTGATTATGTGTTTGAC
20 ACGCTGTTTGGTGCTGACCTCACCATCATGGAGGAGGGCACAGAGCTACTGCACAGGCTT
21 CAGGACCACCTGGAGCAGCACCCCAACAAGGAGGAGCCGCTGCCCATGTTTACCAGCTGC
22 TGCCCTGGCTGGGTGGCCATGGTGGAGAAGTCCAACCCCGAGCTCATCCCTACCTGTCT
23 TCCTGCAAGTCGCCCCAGATGATGCTGGGCGCAGTCATCAAGAACTACTTCGCTGCCGAG
24 GCCGGCGCCAAGCCTGAGGACATCTGCAACGTGAGCGTGATGCCCTGCGTGCGCAAGCAG
25 GGCGAGGCTGACCGCGAGTGGTTCAACACCACAGGGGCTGGCGGCGCGAACGTGGACCAC
26 GTCATGACAACTGCAGAGCTGGGCAAGATCTTTGTGGAGCGCGGAATCAAGCTGAACGAC
27 CTGCAGGAGACGCCCTTTGACAACCCCGTCGGCGAGGGCAGCGGCGGCTACTGTTTCGGC
28 ACCACTGGAGGCGTGATGGAGGCGGCGCTGCGCACCGTGACGAAGTGGTCACACAGAAG
29 CCTTTGGACCGCATCGTCTTTGAGGACGTGCGCGGCCTGGAGGGCATCAAGGAGTCCACG
30 CTGCACCTCACCCAGGCCCCACCAGCCCCTTCAAGGCCCTTGCAGGCGCAGACGGCACC
31 GGCATCACCCCTCAACATCGCGGTGCGCAACGGCCTCGGCAATGCCAAGAAGCTCATCAAG
32 CAGCTGGCTGCAGGCGAGAGCAAGTACGACTTCATCGAGGTCATGGCCTGCCCCGGCGGC
33 TGCATCGGCGGCGGCGGCCAGCCGCGCAGCGCGGACAAGCAGATCCTGCAGAAGCGCCAG
34 GCGGCCATGTACGACCTGGACGAGCGCGCGGTGATCCGGCGCAGCCACGAGAACCCGCTG
35 ATTGGCGCGCTGTATGAGAAGTTCCTGGGCGAGCCCAACGGCCACAAGGCGCACGAGCTG
36 CTGCACACGCACTACGTGGCCGGCGGCGTGCCCGATGAGAAGTGAAGCGGTGGCTGGTGA
37 TGCTGGCTGCGGCGAAGAAACGGTGGGCATGGTGGTGGGTGGGTGGCTGCATGGTGGTGT
38 CGCTCGTGCAGCATGGTGGGTTTGC GGTTGTGATGTTGGGCATGCTGCACGGAGGTGTTT

1 GCATGGTTATGGATATGGTTCAGGTGCTGTGCTGCGTCGCATGCCATAAGCACCTTGTGA
2 CCCTGTGCGATGCATAAAAAATAGATATTGCCATTTGGTTCAGGCTGGTGGTGGCAGTGG
3 CTGGTTAACAGGGGAGTGTGTGTGTTTGTGTGTCTTCATTGTTCGGTGTGTTCTTGCTGCA
4 TGTATTGTAGTGTAAATGGGTATGCACGCCATGCATGCGCACGCGCTCCTCGTGCTGCGAC
5 AGTGCACAACGCACAGCGTGATACAGCTGCAGGACGTTTGCGGAAAAACACTTGTTACTG
6 GTGACGGCTGAAGCAGCGATGATGGAGAGAATGGATTTCGCTGCTATCTCACAGGGCGTGG
7 CTGCTGCATCGCCATGGCATGTCCCTGTTGCACGCAATTGCCTGCGTAATTTTGATAGTG
8 GCAGCACTGAGGCAGCTGCAAGGCCCTTCTGCCAGCGGCTGTTTGTGTCTATCTGTGTTT
9 ACAGGCAGCTGCATTTGAAGGCAAGGGGGTTGGCCATCACTCACTTTGATCACTCACTTT
10 GAAGCAGGCTTCCATCCATGTATTGGTCAACGCACTGAAGTTCTTTTTTTGTCACCAGGC
11 AGCAGTATTGTGTGCACACTACTTGCTATGGAGATGACAGCAGCATCAATCTCAAGCATG
12 ATGAAAGCGTATGTTGTATCAGTGCCCCATTTTGCAGACTCTTAAGAGCTTTACCTTCTC
13 AGGGGTTCAGCAGGTGGTGGTCAGCCAGTTGAGGGAGTGTGTGGCTGTTGTCTTGCCAC
14 CATGTGAGTATTGAAACCACCATCCTGAGCTAAGTGTTTCAGGCATCTTACCCTCATACCC
15 CGCTACCCTGCTACTGGGAGTTTCGTTTCATTGTATTGGCAGCCGTTTACTAATTAGTAA
16 TGGCGCTTGAGCGAGGCATGTCTTGATATGTATGCCCTTAGGAGAGTGTGAGCTCAACTCA
17 ATTCTCATAAGTGTAAGCCACACAACCTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
18

1
2 (2) INFORMATION FOR SEQ. ID NO.8:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 2399 BASE - #PAIRS
5 (B) TYPE: NUCLEIC ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: MRNA
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.7
10
11
12 ATCTTACATGAACACACAAACACTCTCGCAGGCACTAGCCTCAAACCCTCGAAACCTTTT
13 TCCAACAGTTTACACCCCAATTCCGACGCCGCTCCAAGCTCGCTCCGTTGCTCCTTCATC
14 GCACCACCTATTATTTCTAATATCGTAGACGCGACAAGATGTCGGCGCTCGTGCTGAAGC
15 CCGTGC GCGCGCTGTCTATTTCGCGGCAGCTCCTGCAGGGCGCGGCAGGTGCCCCCGCG
16 CTCCGCTCGCAGCCAGCACCCTGCGTGTAGCCCTTGCAACACTTGAGGCGCCCGCACGCC
17 GCCTAGGCAACGTCGCTTGC GCGGCTGCCGCACCCGCTGCGGAGGCGCCTTTGAGTCATG
18 TCCAGCAGGCGCTCGCCGAGCTTGCCAAGCCCAAGGACGACCCACGCGCAAGCACGTCT
19 GCGTGCAGGTGGCTCCGGCCGTTCTGTGCTGCTATTGCCGAGACCCTGGGCCTGGCGCCGG
20 GCGCCACCACCCCAAGCAGCTGGCCGAGGGCCTCCGCCGCTCGGCTTTGACGAGGTGT
21 TTGACACGCTGTTTGGCGCCGACCTGACCATCATGGAGGAGGGCAGCGAGCTGCTGCACC
22 GCCTCACCGAGCACCTGGAGGCCCACCCGCACTCCGACGAGCCGCTGCCCATGTTACCA
23 GCTGCTGCCCCGGCTGGATCGCTATGCTGGAGAAATCTTACCCGGACCTGATCCCCTACG
24 TGAGCAGCTGCAAGAGCCCCCAGATGATGCTGGCGGCCATGGTCAAGTCCTACCTAGCGG
25 AAAAGAAGGGCATCGCGCCAAAGGACATGGTCATGGTGTCCATCATGCCCTGCACGCGCA
26 AGCAGTCGGAGGCTGACCGCGACTGGTTCTGTGTGGACGCCGACCCACCCCTGCGCCAGC
27 TGGACCACGTATCACCACCGTGGAGCTGGGCAACATCTTCAAGGAGCGCGGCATCAACC
28 TGGCCGAGCTGCCCAGGGGCGAGTGGGACAATCCAATGGGCGTGGGCTCGGGCGCCGGCG
29 TGCTGTTCCGGCACCACCGGCGGTGTATGGAGGCGGCGCTGCGCACGGCCTATGAGCTGT
30 TCACGGGCACGCCGCTGCCGCGCCTGAGCCTGAGCGAGGTGCGCGGCATGGACGGCATCA
31 AGGAGACCAACATCACCATGGTGCCCGCGCCCGGGTCCAAGTTTGAGGAGCTGCTGAAGC
32 ACCGCGCCGCGCGCGCGCCGAGGCCGCGCGCACGGCACCCCGGGCCGCTGGCCTGGG
33 ACGGCGGCGCGGGCTTACCAGCGAGGACGGCAGGGGCGGCATCACACTGCGCGTGGCCG
34 TGGCCAACGGGCTGGGCAACGCCAAGAAGCTGATCACCAAGATGCAGGCCGCGGAGGCCA
35 AGTACGACTTTGTGGAGATCATGGCCTGCCCCGCGGGCTGTGTGGGCGGCGGCGGCCAGC
36 CCCGCTCCACCGACAAGGCCATCACGCAGAAGCGGCAGGCGGCGCTGTACAACCTGGACG
37 AGAAGTCCACGCTGCGCCGAGCCACGAGAACCCGTCCATCCGCGAGCTGTACGACACGT
38 ACCTCGGAGAGCCGCTGGGCCACAAGGCGCACGAGCTGCTGCACACCCACTACGTGGCCG

1 GCGGCGTGGAGGAGAAGGACGAGAAGAAGTGAGGAGCGCCAGAGGCTCTTTGGGCGGAGA
2 CAGCTTCAAAGCGAGGGGGCGTATTAGCAGTACCGTAAATATGCACTGATGGGTGATGCG
3 GGTGTCCTCCTTTATATTGAATGGGGTCAAATAGGCGGCGGGTCAAATGTTTCCTTTTT
4 GAGTGGTGTACAGCATGGGGCACGTGTGCGGAGGCCAGTAGGCTGTTCACTGCACGCTG
5 GCATTAGGCGTAGGTACTGGCATGAGGGAGCGCGGCTTGCTAACCGAATGGCGTATCCCT
6 CCAGGGCACGTGGAATGGCGCGTGCCCATCAACGCAAATTCCTGGCCTTCATCGCTTCT
7 GGATATTGAAGCTGCACAAACCTGCATTCTATTTGCTTGTTTACACGTGCCCCAATCTTG
8 GTTGAAGCTAAACATGTTTGGGAACAATTCATCTTACTAAAGCGTGTGGGGTTGAGGA
9 TGCGCACGTTGTGCGCTGGTGGGTGGGCGGGAACGTGGGTAGCATTTAGGCTAGCTGGCA
10 TACGACAACGGGGCCCGTGAGGATTGAGCACTTGACTCGCGAACTTATGAACGTAGCGCT
11 TTATACCCACCGTATGCGATTGACGTTGGTGTAGGCAACCAGGCGGTAGGAAGGCGGAGA
12 GATGCATTGCAAACGCCTGTAAAAGAACGGCATAGCTACTAGACACTCTGATGTGGACCC
13 TTGGCGCAGCCACGACAGGAGAGGTGTGCATCAGCCGCTTGTAAGCACGCACTTCTGAG
14

1
2 (2) INFORMATION FOR SEQ. ID NO.9:
3 (i) SEQUENCE CHARACTERISTICS:
4 (A) LENGTH: 2421 BASE - #PAIRS
5 (B) TYPE: NUCLEIC ACID
6 (C) STRANDEDNESS: SINGLE
7 (D) TOPOLOGY: LINEAR
8 (ii) MOLECULE TYPE: MRNA
9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.9
10
11
12 GCGGAATTACTAGTGATAAGCAGTGGTAACAACGCAGAGTCGCGGGCAGGGACTCGATCA
13 GTTGTTATGTGTTGCCCCGTGGTTGCAAGTAGGCACGCAGGGCGTGCAAGGCATGTTGCT
14 GTCCGTGCAGCAGGGCCAACATCTGAGTGTGATTGTCTCCAACACCTCAGGCCAAGCTG
15 CCTCACTGGCAGCAGGCTCTGGATGAGCTCGCCAAGCCCAAGGAGAGCAGGAGGTTGATG
16 ATCGCGCAAATCGCCTCCGCTGTTCTGTGCTGCTATTGCTGAGACCATTGGCTTGGCCCCA
17 GGAGATGTACCATTGGGCAGCTCGTGACTGGGCTGCGTATGCTTGGCTTTGATTATGTC
18 TTTGACACCCTGTTTGGTGCTGACCTGACCATTATGGAGGAGGGAACGGAGCTGCTGCAT
19 CGCCTGCAGGACCATCTGGAGCAGCACCCCAACAAGGAGGAGCCACTGCCCATGTTTACC
20 AGTTGCTGCCCAGGCTGGGTTGCCATGGTTGAAAAGAGCAATCCTGAGCTCATCCCCTAC
21 CTGTCATCTTGCAAGTCGCCTCAGATGATGCTTGGGGCCGTTATCAAGAACTACTATGCA
22 CAGCAGGTTGGAGTGCAGCCCAGTGACATCTGCAACGTGTCAGTCATGCCATGCGTACGC
23 AAGCAGGGAGAGGCTGACCGGGAGTGGTTCAACACCACAGGTGCAGGCCTTGCCCGTGAT
24 GTTGATCATGTGGTGACTACTGCTGAGGTTGGTAAGATATTCCTGGAGCGTGGCATCAAG
25 CTGAATGAGCTGCCAGAGAGCAACTTTGACAACCCCATTTGGCGAGGGCACAGGTGGTGCT
26 CTGCTGTTTGGCACCCTGGAGGTGTCATGGAGGCAGCACTTCGCACAGTCTATGAAGTG
27 GTGACCCAGAAGCCCATGGGTCGTGTTGACTTTGAGGAGGTGCGAGGCCTTGAAGGAATC
28 AAGGAGGCAGAGATCACACTCAAGCCAGGAGACGACAGCCCATTCAAAGCCTTCGCAGGA
29 GCTGATGGGCAGGGCATCACGCTCAAGATTGCAGTAGCCAATGGGCTTGGCAATGCCAAG
30 AAGCTCATCAAGAGCCTGTCAGAGGGCAAGGCCAAGTATGATTTTATTGAGGTCATGGCA
31 TGCCCTGGTGGCTGCATTGGCGGAGGCGGTGAGCCCCGAGTACTGACAAGCAGATCCTG
32 CAGAAGCGCCAGCAGGCTATGTACAACCTGGATGAGCGCAGTACCATCCGCCGAGCCAT
33 GATAACCCATTTCATCCAGGCGCTGTATGACAAGTTCTAGGCGCACCCAACAGCCACAAG
34 GCACATGATCTGCTGCACACACACTATGTGGCAGGTGGAATTCCAGAGGAGAAGTGAGGG
35 ACCGAGGCCGGAGTGGTGTTATTAGTGTAGAGCTAGGCAGCAGGGATCTGGCCGCATTTG
36 GGTGCTGTTGTTTGGTTTGGCATCAAAGATATGATGAATGTACAATCTATTGGGTTCTTT
37 GTATCTCATTTCATGACTGCTGCTTGGTGAGGTATGGGCCAGGAAGAAGCCCGCATCAATG
38 CATGTGAAGTAGGTGGCTCCACATATGAACCCTATCTGGATGTTTAAGGTACCTGAAACA

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1 ATAGTGCATCGGCTCTGCATGGCTCAACAACCTGTCTTCAGAGCAGGTGTATTCCACACC
2 ATCTTGATTTACCTACCACTCTGTAGTTCAAGTGGTCAAATTGAATGTCTATGGCAGCTA
3 CGCCTGCAGTTCATAGTCTATGAAGGTTTCACCAGAGTCCATGTCCCTCATATTTTTTGT
4 TTTATATGCCTTGATTATGCCCCCTTGAACCATGCTCAATGCACACAAGTTGGTCGCAGGA
5 CAGGCGGCATCGTACATCTCAATTTTCAGAAC TTGTCAGTGCGGCATTGCCTTATTTGTA
6 CTCTTGCACTCCTGTTTCACCCTTGCTACTGCCTTGCAATGCATCTTGTTTTTGCAAGCAA
7 CAGCTCATGCATTGCAATCGATCATCACGTACATCCGTGCCATATTCACATGGTTTTGAC
8 TTGCAAATCAACCACCAGGCAGTGGGTAAATTGCCAGGCTGGGTGCAC TTTGGGCCATTT
9 GGGCAGCCCTCTTGTTGGCGAGCTTTGCTGCAGGGCCAAGCTGAGTGCATCAGACTCAGCA
10 GGCTGCTGCTGGCACTGTAGAATGCTGAAAAGGGCATTCAACTACATGTCATTATTAGGT
11 TGACCTGAGACAGCCGTAAGAATATCATTTGTGTGCTGAAC TTAGTCGTCAATGTCATGCC
12 ATGATGTGTGTTTCAGGGATGGATAAGGGAGGTCCTTCCTCAATTACATGCCTTTCAAGA
13 GACTTCAATATCTGTTGTCAGTGACTTGTTTGTGTTTGCTTAATCCAGTGGTTCTCAAAA
14 AAAAAAAAAAAAAAAAAAAAAA
15